

Faculty Management

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Abstract:

This journal is about Faculty Management (FMag) which is developed to help faculty in reminding their class schedules, academic work by giving an alert message. It is developed as the faculty may have a chance of forgetting their stipulated class schedules which impacts in lagging of syllabus. FMag provides solution to this problem through an android application which has the features like setting alerts, viewing and posting of the timetables, academic calendar, leave management and substitutions.

Keywords: FMag- Faculty Management.

1. Introduction:

1.1 Need of faculty management system with a mobile interface

Smart phones have become a part of our day to day life. We can use them to get the information we want. FMag is an android application developed for the teachers which can be easily accessed to manage their academic work. Android platform has grown vast and is helping us to face our daily activities. The users of FMag are teachers who need to install the application in their smart phones and the login credentials will be given to them by the organization they are working. FMag is automating the task of creating timetables for each and every faculty working in a particular organization which involves a great risk and is time consuming. FMag also provides leave management for the faculty to view the leaves they availed and the leaves remained. It also provides substitution to check the faculty having leisure at a particular period and alter the class schedules with the other faculty.

1.2 Parameters that include the faculty management

Academic Calendar:

In home page the user can access the Academic calendar. In the academic calendar the admin will post the calendar and the remaining faculty will be able to view the academic calendar.

Time-Table:

Time-Table will be posted by the admin. The admin will post the timetable of each and every faculty in the department. The faculties are given permissions only to view the timetable, they cannot modify the timetable.

Notifications:

In this Admin and HOD are given the permissions for posting the notifications. The faculty is not given access for posting the notifications in this app.

Leave Management:

In this the faculty and HOD are given permissions for posting and viewing the data. In this faculty can check the total number of leaves available and the leaves they used. If any faculty wants to take a leave then they can post in this tab and substitute their classes for the other faculty who are available at that time.

Substitutions:

In this the faculty and HOD are given permissions to post and view the requests made the other faculty who are on leave and respond to the post by accepting the request.

In general, time table schedules are given to faculty individually on a piece of paper, which they need to follow throughout the semester. There are chances to misplace the schedule. Faculty may also be engaged in some other institutional/academic works due to which they may forget their class timings. This application helps the faculty to conveniently get alerts for their classes/meetings or any other notifications, substitutions, etc.

1.3 Introduction to fire base

Users were using Envolv to sync application data such as game state in real time across their users. Firebase supports JSON data and all users connected to it receive live updates after every change thus becoming unified enable integration with Android, Java applications. We can use anonymous passwords, so that only users are authenticated by only client-side code. The applications can be deployed over secure connection to Firebase server. The data is real-time, which means that every change will automatically update connected clients.

Chapter2

2.1 Functionality in existing system

In the existing system the users are not given permission to set the alert time, as it is fixed for a particular time of 10 minutes before the stipulated schedule of time. In the existing system the faculty can access the modules like view time table, academic calendar and alerts management.

2.2 Proposed system

FMag was designed to help faculty to remember their class schedules by allowing them to set their own alert timings before every stipulated class hour. FMag also includes the feature of Leave management to know the availed and remaining leaves for every faculty, Substitutions to know the information of faculty availability at a particular time. It also includes individual faculty timetables, class Time-tables, and academic calendar.

Existing system	Proposed system
View or post Time-table	View or post Time-table
View or post Notifications	View or post Academics calendar

Set alerts	View or post Notifications
	Manage Substitutions
	Leave management
	Set alerts

Chapter 3

3.1 Implementations

The system architecture illustrates the database of the time table being loaded into the web server and the web server loading or downloading the timetable into the android phone of the user. Below is the system architecture of the lecture time table reminder system on the android platform.



Chapter 4

4.1 Methodology

FMag is an android application which is developed to assist faculty with the use of Android studio as IDE and firebase as database. It consists of activities like alerts, independent logins, leave management, substitutions, timeline for updates, timetables, academic calendar, notifications, alarms, etc.

The firebase has the functionalities like Hosting, Authentication, Storage, Cloud Messaging, Remote configuration and Crash Reporting

- The application functionalities are Different logins for admin and faculty.
- Alarm and notifications for faculty timetables
- Updates from admin to the end user(faculty)
- Leave management to manage the leaves
- Substitutions for altering class schedules

Admin authorities:

- Can add a new faculty
- Can post updates to faculty

Faculty functionalities:

- Can view the updates
- Can edit their profiles
- Can apply for leave
- Can substitutions instead of other faculty
- Can give feedback

Advantages and limitations

- Automates the manual viewing of timetables
- Overcomes the risk of losing the manual paper based time tables
- Information about the leaves can be provided.
- Provides the facility of altering the class schedules with other faculty using substitutions

Limitations

- All the users of a particular institution should be a registered faculty of this application.
- Internet connection should be available

Conclusion and future scope

This application is mainly for lectures that are having smart phones. FMag is an application which helps faculty to manage their academic work. The faculty can customize the alert timings. They can also post, view notifications. Manage their leaves and classes.

Leave management can also be future fully managed through this application instead of manual process

Faculty can also be given notifications regarding posting student attendance with online learning applications like Byndr, etc.

Users can also be given information about the faculty who are on leave on particular day.

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